

CONTENTS

Special Issue: Trace Metals in Lakes: Proceedings of an International Conference held at McMaster University, Hamilton, Ontario, Canada, 14-18 August 1988

<i>Preface</i>	xi
History of heavy metal pollution in Finland as recorded by lake sediments M. Verta (Helsinki, Finland), K. Tolonen and H. Simola (Joensuu, Finland)	1
Evaluation of trace metal deposition history and potential element mobility in selected cores from peat and wetland ecosystems W.R. Schell, M.J. Tobin and C.D. Massey (Pittsburgh, PA, U.S.A.)	19
Effects of pH on the accumulation and redistribution of metals in a polluted stream bed sediment K. Håkansson, S. Karlsson and B. Allard (Linköping, Sweden).	43
Seasonal trends of copper sedimentation in Lake Orta (Italy) M. Camusso, G. Tartari and E. Cappelletti (Brugherio, Italy)	59
Sedimentary trace metals in lakes in Ibadan, Nigeria S.O. Ajayi and C. Mombeshora (Ibadan, Nigeria).	77
Vertical distribution of uranium mill tailings contaminants in Langley Bay, Lake Athabasca sediments S.R. Joshi (Burlington, Ont., Canada), D.T. Waite (Regina, Sask., Canada) and R.F. Platford (Burlington, Ont., Canada)	85
Sources and behavior of pollutants in several catchments in the Western Harz Mountains, F.R.G. J. Matschullat, H. Heinrichs and J. Schneider (Göttingen, F.R.G.)	105
Spatial distribution patterns of metals in the surface sediments of Lake Orta (Italy) R. Baudo (Verbania Pallanza, Italy), L. Amantini, F. Bo, R. Cenci, P. Hannaert, A. Lattanzio, G. Marengo and H. Muntau (Ispra, Italy)	117
Contrasting behaviour of manganese in the surficial sediments of thirteen south-central Ontario lakes L.I. Bendell-Young, H.H. Harvey (Toronto, Ont., Canada), P.J. Dillon and P.J. Scholer (Dorset, Ont., Canada)	129
Elemental analysis of lake sediment from Sudbury, Canada, using particle-induced X-ray emission G.R. Palmer, S.S. Dixit, J.D. MacArthur and J.P. Smol (Kingston, Ont., Canada)	141
Nickel diagenesis and partitioning in lake sediments R.J. Cornett, L. Chant (Chalk River, Ont., Canada) and R.D. Evans (Peterborough, Ont., Canada)	157

Studies on redistribution during the analytical fractionation of metals in sediments	
S.O. Ajayi and G.W. vanLoon (Kingston, Ont., Canada)	171
Distribution and classification of metal species in soil leachates	
S.J. Duffy, G.W. Hay, R.K. Micklethwaite and G.W. vanLoon (Kingston, Ont., Canada)	189
Observations of methylmercury in precipitation	
N.S. Bloom (Sequim, WA, U.S.A.) and C.J. Watras (Boulder Junction, WI, U.S.A.)	199
Deposition and transport of trace metals in an acidified catchment of Central Ontario	
B. LaZerte, D. Evans and P. Grauds (Dorset, Ont., Canada)	209
Mercury in surficial waters of rural Wisconsin lakes	
W.F. Fitzgerald (Groton, CT, U.S.A.) and C.J. Watras (Madison, WI, U.S.A.)	223
Mercury concentrations in inland waters of gold-mining areas in Rondônia, Brazil	
W.C. Pfeiffer (Rio de Janeiro, Brazil), L.D. de Lacerda (Niterói, Brazil), O. Malm, C.M.M. Souza (Rio de Janeiro, Brazil), E.G. da Silveira (Rondônia, Brazil) and W.R. Bastos (Rio de Janeiro, Brazil)	233
Influence of acidification on metal fluxes in Swedish forest lakes	
H. Borg, P. Andersson and K. Johansson (Solna, Sweden)	241
pH related variations in trace metal concentrations in Lake Orta (Italy)	
R. Mosello, A. Calderoni and G.A. Tartari (Pallanza, Italy)	255
Trace metal research at Little Rock Lake, Wisconsin: Background data, enclosure experiments, and the first three years of acidification	
C.E. Mach and P.L. Brezonik (Minneapolis, MN, U.S.A.)	269
Biogeochemistry of barium and strontium in a softwater lake	
M. McGrath (Lancaster, U.K.), W. Davison (Ambleside, U.K.) and J. Hamilton-Taylor (Lancaster, U.K.)	287
Copper, zinc, cadmium and lead in surface waters of Lakes Erie and Ontario	
K.H. Coale (Moss Landing, CA, U.S.A.) and A.R. Flegal (Santa Cruz, CA, U.S.A.)	297
Cadmium-113m in the water, sediments, and adjacent soils of Lake Michigan	
D. Dunn and T. Tissue (Clemson, SC, U.S.A.)	305
Dynamics of particulate trace metals in the lakes of Kejimikujik National Park, Nova Scotia, Canada	
J.O. Nriagu and H.K.T. Wong (Burlington, Ont., Canada)	315
Heavy metals in water and suspended particulates from an urban basin impacting Lake Ontario	
B.A. Bodo (Toronto, Ont., Canada)	329
Colloidal iron oxyhydroxy-phosphate: The sizing and morphology of an amorphous species in relation to partitioning phenomena	
G.G. Leppard (Burlington, Ont., Canada), R.R. De Vitre, D. Perret and J. Buffle (Geneva, Switzerland)	345

Studies on interactions between components of electroplating industry wastes: Influence of nickel and calcium on interactions between cadmium, copper, chromium and zinc D. Dive, L. Gabriel, O. Hanssens and A. Benga-Bengomme (Villeneuve d'ascq, France)	355
Some fundamental relationships between metal toxicity in freshwater, physico-chemical properties and background levels G. Lithner (Solna, Sweden)	365
Effects of cadmium on a microbial food chain, <i>Chlamydomonas reinhardtii</i> and <i>Tetrahymena vorax</i> S.G. Lawrence, M.H. Holoka and R.D. Hamilton (Winnipeg, Man., Canada)	381
Whole lake addition of cadmium-109 radiotracer accumulation in the mussel population in the first season D.F. Malley, P.S.S. Chang and R.H. Hesslein (Winnipeg, Man., Canada)	397
Chemical and biological correlates of metal levels in crustacean zooplankton from Canadian Shield lakes: A multivariate analysis N.D. Yan, G.L. Mackie (Guelph, Ont., Canada) and D. Boomer (Rexdale, Ont., Canada)	419
Seasonal patterns in metal levels of the net plankton of three Canadian Shield lakes N.D. Yan, G.L. Mackie (Guelph, Ont., Canada) and D. Boomer (Rexdale, Ont., Canada)	439
Net cadmium flux in <i>Hyalella azteca</i> (Crustacea: Amphipoda) populations from five central Ontario lakes M. Stephenson and G.L. Mackie (Guelph, Ont., Canada)	463
Trace metals in a littoral foodweb: Concentrations in organisms, sediment and water K.R. Timmermans, B. van Hattum, M.H.S. Kraak and C. Davids (Amsterdam, The Netherlands)	477
The selenium method for treatment of lakes for elevated levels of mercury in fish K. Paulsson and K. Lundbergh (Skelleftehamn, Sweden)	495
Removal of heavy metals from polluted waters by <i>Hydrodictyon reticulatum</i> (Linn.) Lagerheim U.N. Rai and P. Chandra (Lucknow, India)	509
Analytical reference materials. VIII. Development and certification of a new Great Lakes Sediment Reference Material for eight trace metals V. Cheam, K.I. Aspila and A.S.Y. Chau (Burlington, Ont., Canada)	517
<i>Announcement</i>	525
<i>Author Index</i>	526
<i>Subject Index</i>	528